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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/805,897

03/22/2004

Hebah Ahmed

68.0274CNT(SHL0231C1US)

1919

7590

09/02/2005

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EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/805,897	AHMED ET AL.	
	Examiner	Art Unit	
	Jennifer H. Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 28-36 and 38-45 are rejected under 35 U.S.C. 102(b) as being anticipated by Winter et al. (US 4,580,874).

Regarding claims 28, 41: Winter discloses an apparatus that includes the following features:

- A weld coupling **46** to be welded to an outer housing **16** of a first cable segment **14** (left-hand side of Figure 2) to couple the first cable segment to a second cable segment **14** (right-hand side of Figure 2).
- A thermal insulator **30** adapted to prevent thermal damage to the first cable segment when the weld coupling is welded to the outer housing. *It is noted that the space between the thermal insulator and the weld coupling (8:40-45) is considered part of the “thermal insulator”.*

Regarding claim 29, 40: The thermal insulator contacts the outer housing and indirectly contacts the cable segment (Figures 3-6).

Regarding claims 30, 32, 42, 43: The apparatus also includes a polymeric insulating material **18** separate from the thermal insulator and located between the outer housing and the cable segments. The thermal insulator near the weld coupling displaces the insulating material.

Regarding claim 31: The insulating material contacts the outer housing and the cable segments.

Regarding claim 33: The insulating material transverses an axial length of the first cable segment except where displaced the thermal insulator.

Regarding claims 34, 42, 43: The thermal insulator would prevent melting or outgassing of the insulating material.

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Regarding claim 35: The thermal insulator is located closer to the weld coupling than the insulating material.

Regarding claim 36: The weld coupling is a sleeve approximately centered where the first segment contacts the second segment.

Regarding claims 38, 39: Winter further discloses a method for using that above apparatus that involves providing the weld coupling and preventing thermal damage to the cable segments by providing a thermal insulator between the outer housing and the cable segment.

Regarding claims 44, 45: The method further involves preventing thermal damage to the first and second cable segments when the weld coupling is welded to the outer housing.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 37 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winter et al. (US 4,580,874).

Winter discloses all of the limitations of the above claims except for a second thermal insulator separate from the first thermal insulator for protecting the second cable segment. However, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have connected the second cable segment would be connected to a third cable segment at another location using the splice taught by Winter in order to have used a relatively simple splice to connect pieces of cable along the entire length of the cable (2:48-68). A second splice would include a second thermal insulator, separate from the first, for protecting the second cable segment.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or

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improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 28 and 38 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6 and 27 of U.S. Patent No. 6,886,638. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 6 and 27 of U.S. Patent No. 6,886,638 include all of the features, plus additional features, recited claims 28 and 38 of the instant application and could be used to reject the subject matter of claims 28 and 38 of the instant application

7. Claims 28, 38, and 39 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, and 40 of U.S. Patent No. 6,919,512. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, and 40 of U.S. Patent No. 6,919,512 include all of the features recited in claims 28, 38, and 39 of the instant application and could be used to reject the subject matter of claims 28, 38, and 39 of the instant application. It is noted that claims 1, 2, and 40 of U.S. Patent No. 6,919,512 do not specifically recite that the thermal insulator contacts the outer housing and contacts the communication line but does recite that the thermal insulator, or reflective sleeve, is located between the two features.

Response to Arguments

8. The Terminal Disclaimers filed on 18 July 2005 have not been approved due to the lack of a 373B statement or reel and frame number. Further, the Terminal Disclaimers are labeled as being for Application No. 10/806,897 and not the instant application, 10/805,897. Thus the Double Patenting rejection of claims 28, 38, and 39 has been repeated.

9. Applicant has argued against the 35 USC 102(f) rejection of claims 28, 29, and 38-40 by stating that the naming of an inventor on an application merely indicates that the inventor contributed to at least one claim and not necessarily all of the claims or the broadest claims thus the examiner has applied the statute incorrectly. Applicant has further argued that claim 28 of the instant application is of different scope from claim 1 of US Application No. 10/449,469. In view of applicant's arguments, the 35 USC 102(f) rejection of claims 28, 29, and 38-40 has been withdrawn.

10. Applicant's arguments filed 18 July 2005 have been fully considered but they are not persuasive.

Applicant has argued that element **30** of Winter et al. is not a thermal insulator due to it being metallic. Applicant has specifically argued that the metal element would conduct heat when soldered to the outer housing and be at the same temperature as the outer housing during the welding.

While the examiner recognizes that metal is a conductor of heat, air is a natural thermal insulator and a sizable gap is seen to be between element **30** and the outer housing. Gaps or clearances are known to be used as thermal insulators, in double paned windows for example.

A further gap or clearance is located between the thermal insulator and the weld coupling. This gap would aid in protecting the splice from thermal radiation while welding the coupling to the outer housing. The examiner notes that, as indicated above, element **30** was used to indicate both the sleeve and the gaps around the sleeve in the previous Office Action.

It is further noted that, while Winter et al. does not specifically teach thermal insulation, element **30** must function as a thermal insulator to some degree as one is allowed

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to assume that the splice will function after assembly. Thus the cables must be protected from thermal radiation during the process of welding element 30 to the outer housing.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

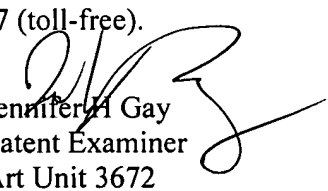
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JHG
August 29, 2005


Jennifer H. Gay
Patent Examiner
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